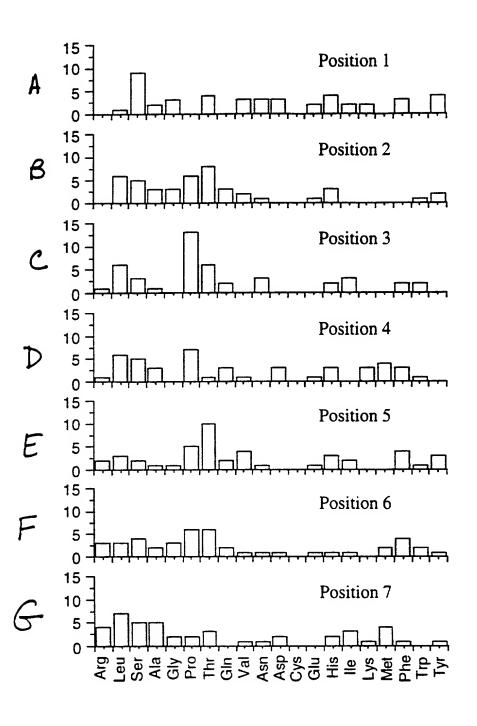
3092 0 (sheet 1 of 41)

Figure 1



309 6 (Sheet 2 of L)

Sequences 1-40 (some did not sequence) panning 3 expt 1

His Thr Thr Val Tyr Gly Ala Gly CAT ACG ACT GTT TAT GGG GCT GGT

Thr Glu Thr Pro Tyr Pro Thr Gly ACT GAG ACG CCT TAT CCT ACT GGT

Leu Thr Thr Pro Phe Ser Ser Gly CTT ACT ACT CCG TTT TCG TCG GGT

Gly Val Pro Leu Thr Met Asp Gly GGT GTG CCT CTT ACG ATG GAT GGT

Lys Leu Pro Thr Val Leu Arg Gly AAG CTT CGG ACT GTT CTG CGG GGT

Cys Arg Phe His Gly Asn Arg Gly TGT CGC TTT CAT GGG AAT CGT GGT

Tyr Thr Arg Asp Phe Glu Ala Gly TAT ACT CGG GAT TTT GAG GCT GGT

Ser Ser Ala Ala Gly Pro Arg Gly TCG TCG GCG GCT GGT CCG CGG GGT

Ser Leu Ile Gln Tyr Ser Arg Gly TCT CTG ATT CAG TAT TCG AGG GGT

Asp Ala Leu Met Trp. Pro UKN Gly GAT GCT CTT ATG TGG CCT NTG GGT

Ser Ser UKN Ser Leu.Tyr Ile Gly TCG TCT CNT TCG TTG TAT ATT GGT

Phe Asn Thr Ser Thr Arg Thr Gly TTT AAT ACT TCG ACG CGT ACG GGT

Thr Val Gln His Val Ala Phe Gly ACT GTG CAG CAT GTT GCT TTT GGT

Asp Tyr Ser Phe Pro Pro Leu Gly GAT TAT TCT TTT CCG CCT CTT GGT

Val Gly Ser Met Glu Ser Leu Gly GTG GGG TCT ATG GAG TCG TTG GGT

Phe UKN Pro Met Ile UKN Ser Gly

TTT CAN CCG ATG ATT NGN TCG GGT

Ala Pro Pro Arg Val Thr Met Gly GCG CCT CCG CGG GTT ACT ATG GGT

FIGURE 1H.

30 26 (Sheet 3 of 41)

Ile Ala Thr Lys Thr Pro Lys Gly ATT GCT ACG AAG ACG CCT AAG GGT Lys Pro Pro Leu Phe Gln Ile Gly AAG CCT CCG TTG TTT CAG ATT GGT Tyr His Thr Ala His Asn Met Gly TAT CAT ACT GCT CAT AAT ATG GGT Ser Tyr Ile Gln Ala Thr His Gly TCT TAT ATT CAG GCT ACG CAT GGT Ser Ser Phe Ala Thr Phe Leu Gly TCG TCT TTT GCT ACT TTT CTT GGT Thr Thr Pro Pro Asn Phe Ala Gly ACG ACT CCG CCG AAT TTT GCG GGT Ile Ser Leu Asp Pro Arg Met Gly ATT TOT CTT GAT CCG CGT ATG GGT Ser Leu Pro Leu Phe Gly Ala Gly TCG CTG CCG CTG TTT GGT GCG GGT Asn Leu Leu Lys Thr Thr Leu Gly AAT CTT CTT AAG ACT ACG CTT GGT Asp Gln Asn Leu Pro Arg Arg Gly GAT CAG AAT CTG CCG CGG CGG GGT Ser His Phe Glu Gln Leu Leu Gly AGT CAT TTT GAG CAG CTG CTT GGT Thr Pro Gln Leu His His Gly Gly ACG CCG CAG CTT CAT CAT GGT GGT Ala Pro Leu Asp Arg Ile Thr Gly GCG CCT CTG GAT AGG ATT ACG GGT Phe Ala Pro Leu Ile Ala His Gly TTT GCG CCT CTT ATT GCG CAT GGT Ser Trp Ile TER Thr Phe Met Gly TCG TGG ATT TAG ACG TTT ATG GGT Asn Thr Trp Pro His Met Tyr Gly AAT ACT TGG CCT CAT ATG TAT GGT Glu Pro Leu Pro Thr Thr Leu Gly GAG CCT CTT CCG ACT ACG TTG GGT His Gly Pro His Leu Phe Asn Gly CAT GGG CCT CAT CTG TTT AAT GGT

1 H (cmt.)

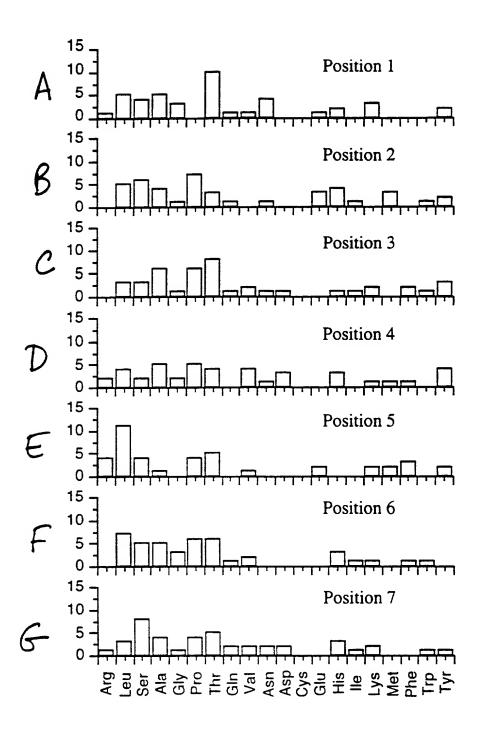
309. 6 (sheet 4 of 11)

Tyr Leu Asn Ser Thr Leu Ala Gly TAT CTG AAT TCT ACG CTT GCT GGT

His Leu His Ser Pro Ser Gly Gly CAT CTT CAT AGT CCG TCG GGG GGT

309. 6 (Sheet 5 of .1-)

Figure 2



31726 (sheet 60741)

Translated sequences 41-80 (not all sequenced) panning #3 expt #3

```
Thr Leu Pro His Arg Leu Asn Gly
ACT CTG CCT CAT CGT CTG AAT GGT
Ser Ser Pro Arg Glu Val His Gly
TCG AGT CCG AGG GAG GTT CAT GGT
Asn Gln Val Asp Thr Ala Arg Gly
AAT CAG GTT GAT ACG GCT CGG GGT
Tyr Pro Thr Pro Leu Leu Thr Gly
TAT CCT ACG CCG CTG CTG ACT GGT
His Pro Ala Ala Phe Pro Trp Gly
CAT CCT GCT GCT TTT CCT TGG GGT
Leu Leu Pro His Ser Ser Ala Gly
CTT CTT CCG CAT TCT AGT GCT GGT
Leu Glu Thr Tyr Thr Ala Ser Gly
CTT GAG ACT TAT ACG GCT TCT GGT
Lys Tyr Val Pro Leu Pro Pro Gly
AAG TAT GTG CCT CTG CCG CCG GGT
Ala Pro Leu Ala Leu His Ala Gly
GCG CCG TTG GCT CTG CAT GCG GGT
Tyr Glu Ser Leu Leu Thr Lys Gly
TAT GAG TCG CTG CTG ACT AAG GGT
Ser His Ala Ala Ser Gly Thr Gly
TCT CAT GCG GCT TCT GGT ACT GGT
Gly Leu Ala Thr Val Lys Ser Gly
GGT TTG GCG ACT GTT AAG TCT GGT
Gly Ala Thr Ser Phe Gly Leu Gly
GGT GCT ACG TCT TTT GGG CTT GGT
Lys Pro Pro Gly Pro Val Ser Gly
AAG CCG CCT GGG CCG GTG TCG GGT
Thr Leu Tyr Val Ser Gly Asn Gly
ACT CTT TAT GTT TCT GGG AAT GGT
His Ala Pro Phe Lys Ser Gln Gly
CAT GCT CCG TTT AAG TCT CAG GGT
Val Ala Phe Thr Arg Leu Pro Gly
GTG GCG TTT ACG CGG CTT CCG GGT
```

FIGURE 2H.

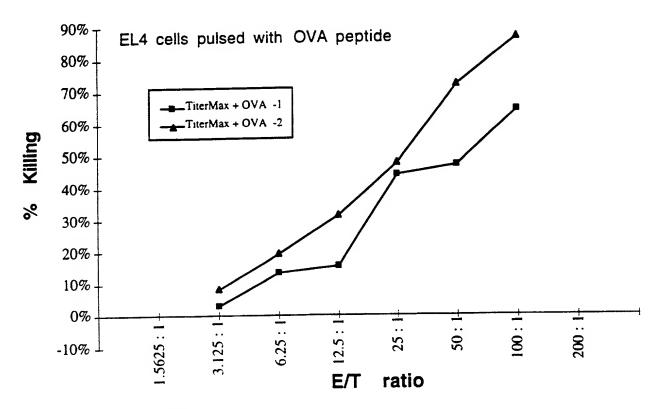
= 3926 (sheet 7 F 41)

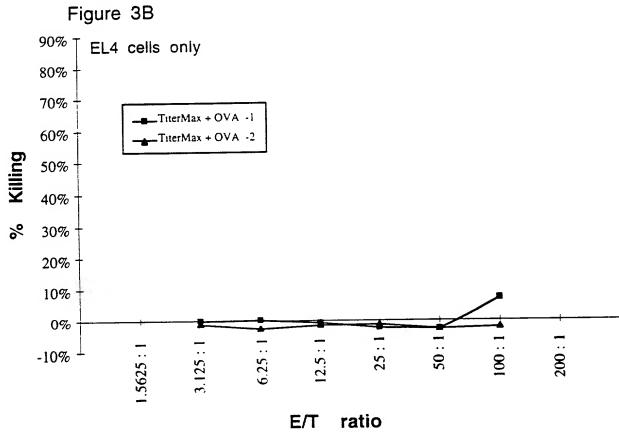
Leu Pro Thr Arg Thr Pro Ala Gly CTG CCG ACT CGT ACG CCG GCT GGT Ala Ser Phe Asp Leu Leu Ile Gly GCG AGT TTT GAT CTT TTG ATT GGT Arg Met Asn Thr Glu Pro Pro Gly CGG ATG AAT ACT GAG CCT CCG GGT Lys Met Thr Pro Leu Thr Thr Gly AAG ATG ACT CCT CTG ACG ACT GGT Ala Asn Ala Thr Pro Leu Leu Gly GCG AAT GCG ACG CCT CTG CTG GGT Thr Ile Trp Pro Pro Pro Val Gly ACT ATT TGG CCT CCG CCT GTT GGT Gln Thr Lys Val Met Thr Thr Gly CAG ACT AAG GTG ATG ACG ACG GGT Asn His Ala Val Phe Ala Ser Gly AAT CAT GCT GTT TTT GCT AGT GGT Leu His Ala Ala UKN Thr Ser Gly CTG CAT GCG GCT ANT ACG TCG GGT Thr Trp Gln Pro Tyr Phe His Gly ACG TGG CAG CCG TAT TTT CAT GGT Ala Pro Leu Ala Leu His Ala Gly GCG CCG TTG GCT CTG CAT GCG GGT Thr Ala His Asp Leu Thr Val Gly ACG GCG CAT GAT CTG ACT GTT GGT Asn Met Thr Asn Met Leu Thr Gly AAT ATG ACT AAT ATG CTT ACT GGT Gly Ser Gly Leu Ser Gln Asp Gly GGT TCT GGG CTG TCT CAG GAT GGT Thr Pro Ile Lys Thr Ile Tyr Gly ACG CCG ATT AAG ACG ATT TAT GGT Ser His Leu Tyr Arg Ser Ser Gly TCG CAT CTG TAT CGT TCT AGT GGT

2H (cont)

= 2926 (sheet 8 4 41)

Figure 3A





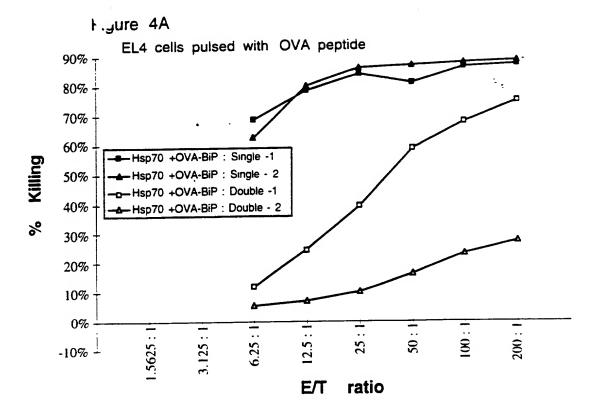
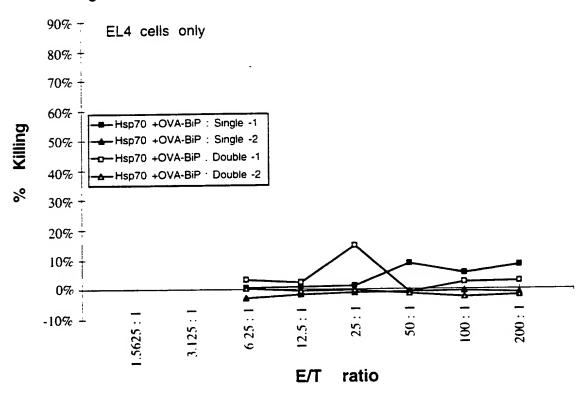
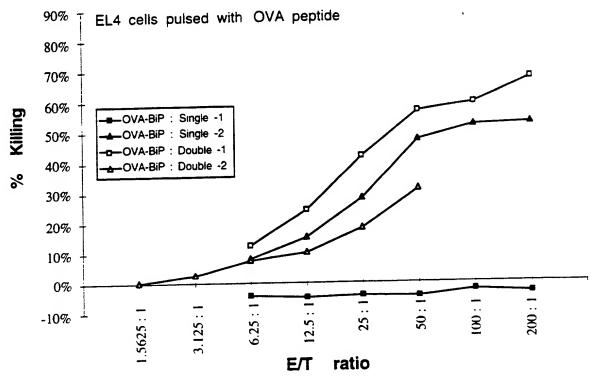


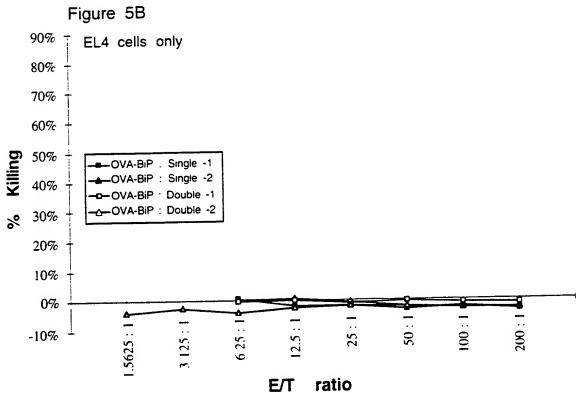
Figure 4B



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Figure 5A





30926 (sheet 100+41)

Figure 6A

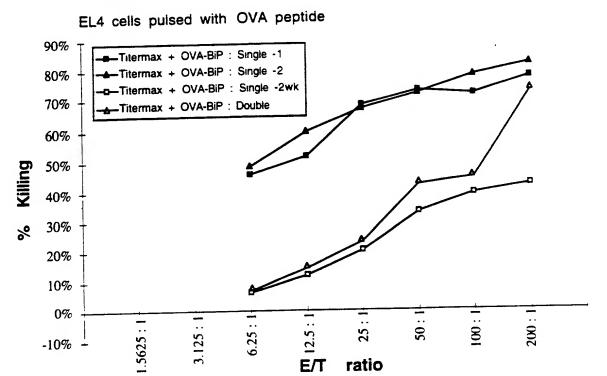
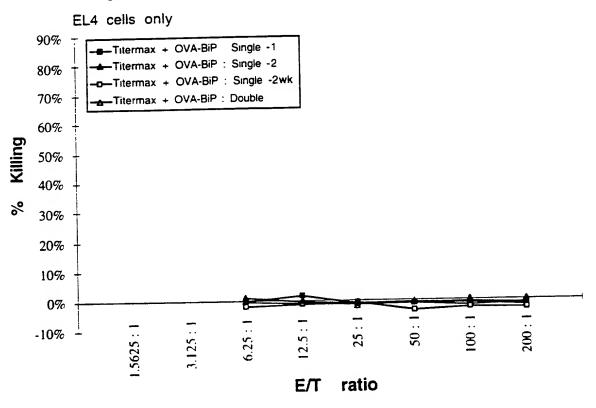


Figure 6B



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30926 (Sheet 12 c. 41)

Peptide Only Immunizations

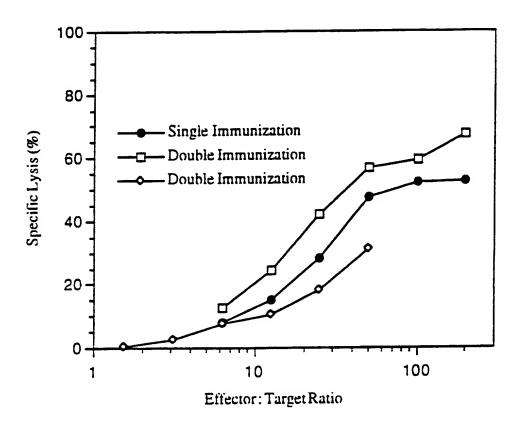
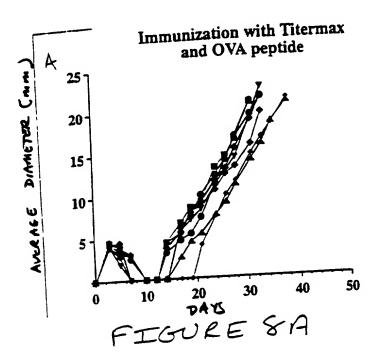


FIGURE 7

30 26 (sheet 1: of 41)



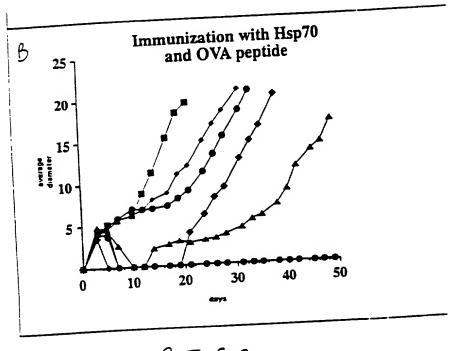


FIGURE 8B

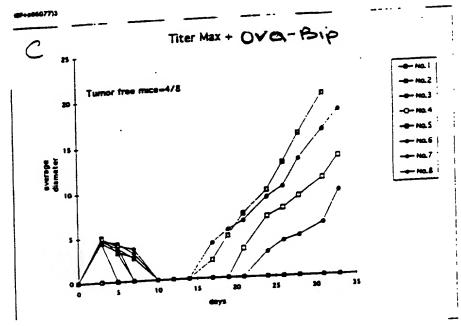


FIGURE 8C

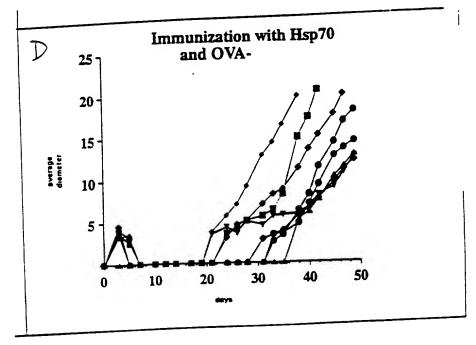
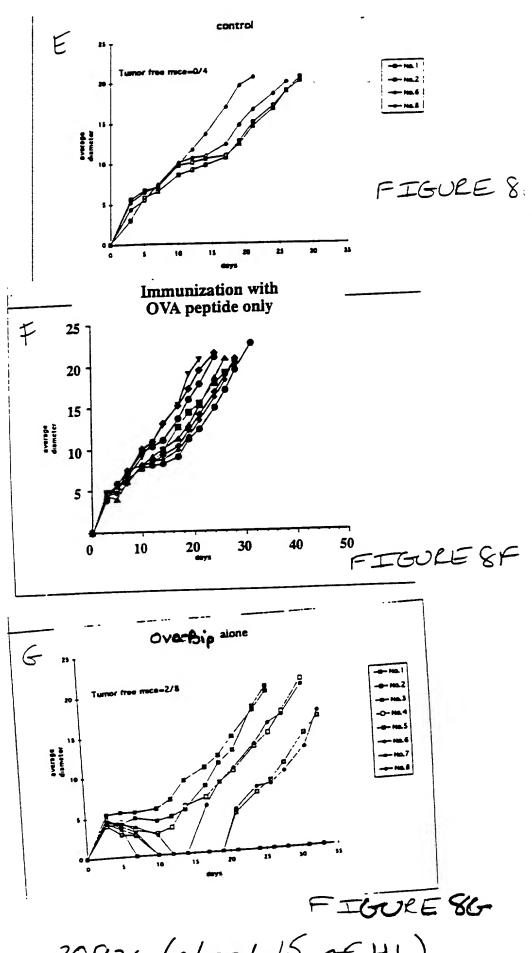


FIGURE 8D 5



30926 (sheet 15 of 41)

THE AVERAGE DELAY OF ONSET OF TUMOR GROWTH

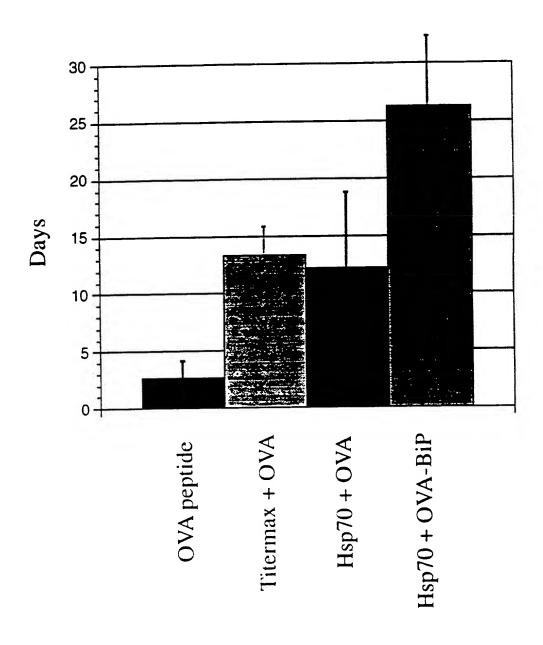


FIGURE & (H)

30926 (Sheef, 17 OF 41)

0926 (sheet 1. of 41)

FIGURE 9B

23926 (sheet, of 41)

FIGURE 9C.

17-aminohexylamino HA

Herbimycin A, HA

30926 (sheet 21 of 41.)

FIGURE

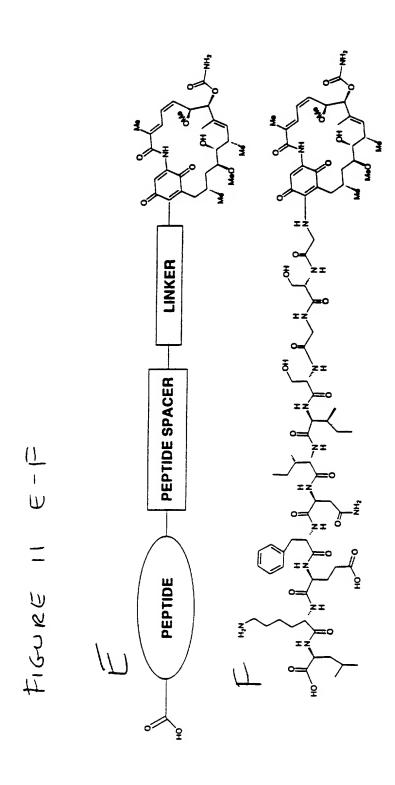
PEPTIDE N₂ IZ Variable Spacer, Tether ŽΙ

PEPTIDE PEPTIDE SPACER . U

FIGURE 10 E-F

30926 (Sheet 24 of 41)

FIGURE 11 A + E



30920 (Sharmanof 11)

FIGURE

30 FOR CSAREPTER OF 41.)

FIGURE 13 A

FIGURE 13.B.

20% piperidine, 20% piperidine, DMF, 30 min 20% piperidine, DMF, 30 min XX| Fmoc-Ser (O'Bu)-OH (2 5 eq.) PyBop (2 5 eq.), DIPEA (5 eq.) DMF, rt, 45 min PyBop (2 5 eq), DIPEA (5 eq) DMF, rt, 45 min Fmocile-OH (2 5 eq.) PyBop (25 eq), DIPEA (5 eq) DMF, n, 45 min Fmoc.Asn-(N-Trl)OH (2,5 eq.) Fmoc-Ile-OH (2 5 eq)

Fully Protected Peptide

(-14 to 16 tooks) UBPUE

FIGURE 14A

(-17 to 08 to245) 07608

11

BOCHIN a)1% TFA, CH₂Cl₂, 2 min, rt b) Pyridine, methanol (1: 9) c) purification **Fully Protected Peptide**

FIGURE

(-14 to 18 +2742) 08008

(14 70 S; tooks) 0680°,

FIGURE 16 A.

(IH to 8 \$2245) 05363

(Ih to hi +2245) ores. 8

3: 936 (5heet 3. of 41.)

31926 (Sheef 3, OF 41)

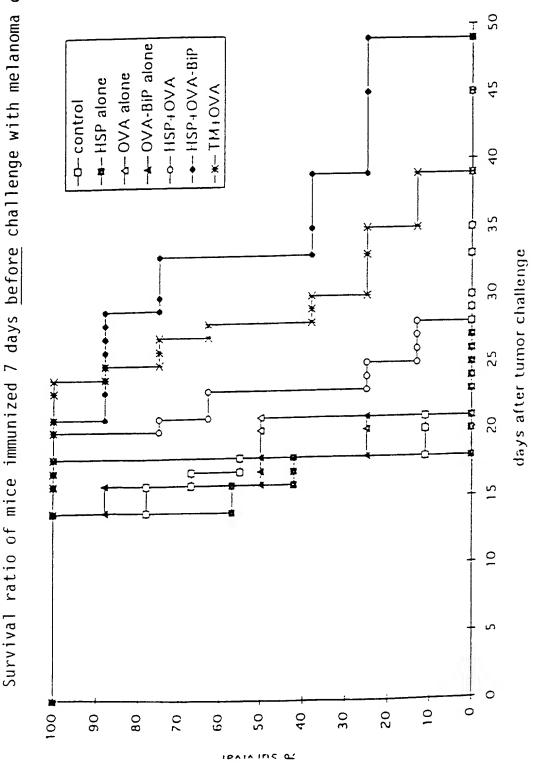
(-14 to LE 12345) 2860E

(14 to .: f2245) 08:28

IOOSSHQG OILTO

FIGURE 19 F.

Survival ratio of mice immunized 7 days before challenge with melanoma cells



(14 to 04 to 245) 97578

Survival ratio of mice immunized 7 & 14 days <u>after</u> challenge with melanoma cells

